About the Carsharing Concept

From Ownership to Usership: The Rise of the Sharing Economy

A change in socio-economics dynamics, advanced technologies and the Internet have seen to the rise of the sharing economy.

Based on the principle that an unused resource is a wasted resource, and that any resource not used in full represents a loss; the sharing economy aims to minimize waste through increased usage of the resource.

For example, a car that sits for many days in a garage may represent a loss for the owner and a waste for the community.

What Is Carsharing?

Carsharing is one of the rapidly developing areas in the sharing economy, and it refers to a carsharing provider making a vehicle available for a set period for a specific journey.

What Is a Carsharing Service Provider?

The term carsharing provider refers to any business or organization that has a fleet of cars that are made available for a fee to the public.

A private car-owner may also act as a carsharing provider.

Carsharing service providers may be a:

- Privately owned business
- Local government organisation
  Carsharing schemes are used by local governments to decrease pollution and manage traffic congestion.
- Corporation
  Corporations with attention to environmental issues offer carsharing schemes to their employees. Carsharing is also used to increase mobility.
- Private car-owner
  Private car-owners, who do not frequently use their cars, may decide to share their own car as a way of cost-cutting. Environmental issues may also be a reason in deciding to share their vehicles.

Carsharing service providers offer the service for a fee.

A web application or other third-party solution handles reservation, payments, and other transactions.

The Benefits of Carsharing

The impact of carsharing has been particularly recognised on three areas:

- Environment
- Cost-cutting
- Community

Impact on the Environment

Carsharing, in conjunction with cleaner energy transport and public transport, contributes to decreasing environmental pollution.

The carsharing philosophy instils in the society a new way of conceiving transport and incentivizes to rethink the consumption of it.

Carsharing does not aim to be a substitute to car ownership, instead it offers an alternative way to think about transport. In this respect, carsharing can result in fewer cars on the road, a decrease in traffic congestion, petrol consumption, and – as a consequence- a decrease in environmental pollution.

Cost-cutting

Carsharing offers versatility and allows users to drive a car when they need without incurring in the additional costs that car ownership entails. In fact, the costs of a shared car are spread over the users-base.

Joining a carsharing scheme allows a user to save on:

- Car maintenance costs
- Road fund licence
- Parking fees
- Petrol
- Insurance
- Car purchase

Because of the steep savings, current car-owners who have bought into the carsharing philosophy, may consider selling their cars.

Impact on the Community

Removing the cost barrier of buying a car has a positive impact for the community.
In fact, easy access to a car increases:

- Mobility within the community
- Independence
- Disposable income

People are also more motivated to keep physically active and to use alternative transport such as a bike, hence improving health and boosting mood.

How Carsharing Works

Carsharing requires a carsharing service provider to make its fleet available to the public through subscription to the service.

Membership

Carsharing is always a membership-based self-service.
The eligibility requirements for membership vary between service providers, and from country to country, depending on local legislation.
Once registered, the user downloads a third-party web application – as indicated by the service provider- on the smartphone.

The third-party application allows the user to:

- Locate a car
- Reserve a car
- Pay for the service
- Find out additional information about the vehicle
- Communicate with the service provider

The third-party solution acts as a liaison between the carsharing service provider and the user:
All communications, transactions and administrative matters are managed through the third-party solution.

Types of Carsharing

Carsharing service providers may have different offerings. The main types are the roundtrip offering and the floating-zone based offering.

The Roundtrip Offering

With this method, the user picks up the car from a set collection point and returns the car to the same collection point.

The One-way Trip Offering (Floating-zone)

With this method, the user picks up the car from a set collection point and returns the car to any collection point within the service provider's network.

The Reservation Workflow

The user needs to register for the service on the carsharing provider website.

The steps required to access a car are shown in the Reservation workflow diagram.

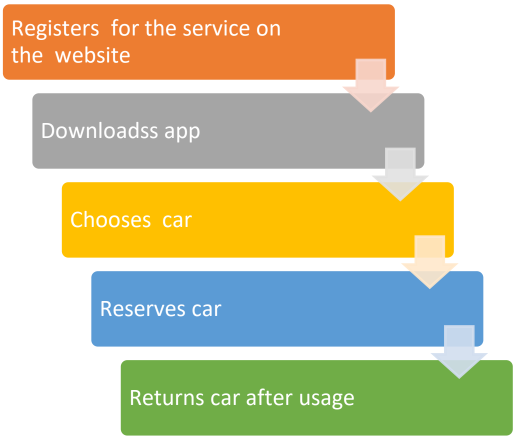

Figure 1The Reservation Workflow

Carsharing Technology

Carsharing services have become possible thanks to an array of in-car technologies that provide seamless interaction and added functionalities.

Key to in-car technology is the on-board computer.

The on-board computer provides:

- Connectivity
  Connectivity allows the vehicle to "communicate" with the app.
  For example, to open and lock the car from the app that the user has downloaded on the smartphone.
- GPS
  The GPS locates the vehicle position and communicates it to the app.